Education for Thinking. Deanna Kuhn. Cambridge, MA: Harvard University Press, 2005. 218 pp. $35.00 (paper).

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In a changing society, it is critical that shareholders of any business or institution constantly reassess their mission statement, in effect asking, "What is our purpose, *really*?" This reassessment of shared goals and purposes is currently being debated in the realm of education. Many have decried the modern structure of public K–12 schools as representative of the industrial age of American society (Burbach 1988, Cassel 1998, Reigeluth 1994), when schools were designed to prepare students for repetitive and technical tasks. Many educational researchers, however, have written that times have changed and that as educators we need to reassess our mission statement. Deanna Kuhn essentially does this in the opening line of her book, *Education for Thinking*, when she asks "Why do we send our children to school?" In her Introduction, she argues that most educators feel our purpose in schools should be to teach students to be "confident, eager, and self-motivated learners" and "responsible and independent thinkers" who will "love learning and value knowledge," who will be "open-minded and compassionate," and who will "fulfill their creative potential," to name only some of the quotes from school brochures cited by Kuhn (3). Hardly any educator would disagree that these should be our aims, but what we do disagree about is how to achieve these goals. How do we help prepare students for lifelong learning and for the creative, discerning, agentive, and adaptable kinds of thinking and performing they will need to be able to do throughout their lives? Kuhn responds with her answer to this quandary: "To make the conceptual progress that stands the best chance of improving education, we need to … look to life outside of and beyond school as a source of wisdom regarding what our children should learn" (10). And real life thinking usually involves inquiry, or the seeking of answers to specific questions or problems, and argumentation, or the negotiation between two or more people toward a conclusion based on evidence. According to Kuhn, these are the skills that children need to succeed in life; indeed, these are the skills they practice everyday on the playground as they explore those parts of the world interesting to them. And yet these are also the skills sometimes most lacking in classroom instruction.

In this book, Kuhn describes ideas for instilling more inquiry and argumentation-based activities into our classrooms. The book flows through four sections, beginning with Kuhn's Introduction, which argues the case for more meaningful learning in schools, and continues into the "Inquiry" section, where Kuhn explains more deeply why inquiry is such an important skill for children to learn in schools, along with defining what the components of successful inquiry are and how to de-

velop these skills. In the "Argument" section, Kuhn follows the same procedure, pressing first for more argumentation and then defining the skills of argumentation and ideas for developing these skills. In the final, "Conclusion" section, Kuhn delves into the topic of what it means to be an educated person and how becoming educated is a partnership between students and teachers. Throughout the book, Kuhn supports her position with both quantitative and qualitative data that she has collected over several years. Thus, this is not the write-up of a single study but rather the sharing of ideas distilled over years of working with a directed research agenda. From her pool of data, published in several articles, Kuhn focuses on two classrooms in particular: a class from a well-performing, affluent school and a class from an urban, "struggling" school. The comparisons between these two cases are striking. Kuhn explains that in the struggling class,

> Of the thirty-five students in the class, twenty-eight to thirty were present on any given day. It was unusual for the class to be silent or to hear only a single person speaking. At any given time, a number of students were likely to be talking, sometimes loudly, or laughing. Teachers and other adults at the school were accustomed to attracting students' attention with some form of loud music or speaking in a raised voice—shouting, in fact—to make themselves heard …. Typically, the teacher was willing to continue with what she was saying if no more than two or three individual conversations were going on softly and the majority of the students were quiet. (20–21)

Kuhn's description of the "best-practice" school was quite a stark contrast. In this class, Kuhn reports that discipline was not an issue, and that

> The dominating characteristic was not noise, as in the struggling school, but time, which was treated as a precious commodity not to be wasted. Students rushed from one class to the next in the few minutes allotted …. The classroom agenda was sufficiently full and demanding to absorb students' full attention almost all of the time …. The sense that pervaded the classroom was that there was work that needed to be done. (21–22)

Despite the startling differences in these two learning environments, Kuhn asserts, and provides descriptions of class activities to support her view, that neither of these classes were successful in providing inquiry and argumentation activities that were truly meaningful to the students. Kuhn observed that some designed inquiry/argumentation activities (I/A) failed because:

1. Students did not develop information literacy skills, instead copying whole Web sites as answers to their "inquiry."

2. Inquiry activities focused on subject material, which was uninteresting to students, rather than on the important process of developing I/A skills. Consequently, the most important part of a grade was knowledge of the subject material, and not of I/A skills, and the students knew it.
3. Inquiry software was not designed with the students' needs in mind.
4. Analysis of evidence was not stressed as much as the mere presence of evidence.
5. Self-expression was emphasized over true dialectical argumentation.

These activities, according to Kuhn, do not develop true inquiry/argumentation skills in children. Instead, she argues for three phases of inquiry activity: (1) inquiry; (2) analysis of evidence; and (3) inference, or judgment (80). She also argues that there are three perspectives required for successful argumentation: (1) external information (the evidence), (2) one's own perspective, and (3) the other's perspective. Thus, simple self-expression cannot suffice, nor can blind acceptance of all views regardless of their backing in evidence.

Interestingly, the main critique I might have of Kuhn's book is that she, like many of the students she studied, seems to present her argument without sufficient background in evidence. It appears there are a wealth of data and evidence to support her views, and these studies are probably elaborated more fully in her cited articles. In the book itself, however, there is little discussion about how she collected, analyzed, or drew inferences from her data. There is no chapter on the methodologies she used in her research, giving this book at times the appearance of being more like an essay than a reporting of research. Although the descriptions that Kuhn gives of the struggling class and the best-practices class are thick and helpful, we are left to wonder how unique or representative these descriptions are of the classes. It would have been helpful to know how often Kuhn visited these classes; how representative the scenarios she describes were of regular activity; how she sampled the classes that she studied; how representative the classes she described in her book were of others that she has researched; and most important, why we can trust her descriptions and inferences. Some mention of peer debriefing or member checking, or other methods for establishing trustworthiness (Guba 1981; Lincoln and Guba 1985), would have strengthened her argument. This could be especially helpful for the scholars who struggle with how to present inquiry-based education as a viable alternative to policymakers.

Conceptually, Kuhn seems to approach her research with a design-based research approach (Design-Based Research Collective 2003; Collins, Joseph, and Bielaczyc 2004; Hoadley 2004), whether she intended to do so or not. Design-based research is an interesting, and in this case a successful, approach to studying interventions in schools. In her book, it appears that she began her research collecting data on standard I/A practices in schools and on students' I/A abilities. Then she moved into designing her own I/A activities to be used in a few

classes. Along the way, Kuhn and her colleagues conducted many quantitative and qualitative studies to answer targeted questions about inquiry and argumentation among students. These studies informed her design of I/A interventions, and these designed interventions provided her the opportunity to study her ideas in action and to develop her theories. The end result is a more polished set of ideas generated from an iterative program of research, and also, it seems, a good example of how design-based research might be used.

Overall, this is an important book that should be read by K–12 educators, administrators, and preservice faculty. It clearly explains how inquiry and argumentation are skills within the reach of students' abilities but that are still often lacking in classrooms. It defines the problem, but it also provides ideas, rooted in research and principles of educational psychology, for a solution. Change is never easy, and Kuhn admits in closing her book that her vision for education differs significantly from most of the conventional curricula in schools. She proposes not more attention to the breadth of educational studies, but less, with the advantage being the ability to focus more energy on studying subjects on a deeper, more intellectual level. In our era of high-stakes testing, No Child Left Behind, and pressure on teachers to prepare students who can circle the right answers on multiple-choice tests, Kuhn's call for more time spent on inquiry and argumentation activities may be a hard sell. However, helping students in the modern "Information Age" to acquire more information is not the best use of their time in schools. Instead, we need to help students acquire intellectual skills that they can apply to the vast amounts of information they will be swimming through for the rest of their lives. In short, our students don't need to know more, they need to know how to evaluate, sort, reason with, and apply what they do know. It is time to reassess what kind of society awaits our students and make the changes necessary to prepare them. First, we need to know what kinds of intellectual skills we need to be instilling in our students, and second, we need to know how to teach these skills effectively. Kuhn's book contains many interesting insights into both and is a strong call for more effective education.

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Perspectives on Policy

Radical Possibilities: Public Policy, Urban Education, and a New Social Movement. Jean Anyon. New York: Routledge, 2005. 240 pp. $22.95 (paper).

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The United States stands alone among all major industrialized democratic nations in failing to provide social and economic rights to its citizenry. More than 13 million children live in poverty; families with children comprise 40% of the homeless population; 12.6 million households lack adequate food security, with 3.9 million experiencing significant episodes of hunger each month (Children's Defense Fund 2005); and the United States together with Mexico, ranks *last* among 26 industrialized nations in the alleviation of child poverty (UNICEF 2005). Although social and economic rights are considered a key part of the fabric of human rights in most democratic societies, the United States has, as yet, failed to ratify three major international treaties—(1) the United Nations Convention on the Rights of the Child, (2) the Convention for the Elimination of all Forms of Discrimination Against Women, and (3) the International Covenant on Economic, Social, and Cultural Rights—that recognize the centrality of a social and economic infrastructure that supports living-wage jobs, access to affordable housing, health care, child care, paid parental leave, and other public policies that affirmatively support women and children and ensure greater social inclusion for both citizens and immigrants.

The work of legal scholars such as Martha Davis (former director of the National Organization of Women's Legal Defense and Education Fund) and others